

**RISK FACTORS FOR TRACHOMA IN EASTERN  
EQUATORIA STATE, SOUTHERN SUDAN**

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## ABSTRACT

Trachoma is a contagious, chronic inflammatory disease of the eyes, caused by the bacteria *Chlamydia trachomatis*. It remains the main cause of preventable blindness and the second leading cause of blindness globally. According to WHO estimates, 84 million people have active disease, and another 7.6 million people have trachomatous trichiasis. An estimated 10% of the world's population lives in endemic areas and is at risk of developing trachoma. In Southern Sudan, trachoma is endemic and high prevalence of active trachoma (54%) has been reported in Eastern Equatoria State. We conducted this study to determine the risk factors for trachoma in the Eastern Equatoria State.

A population-based, unmatched case-control study was designed and conducted to determine the specific risk factors for trachoma. Standardized questionnaire was constructed and participants interviewed. Focal group discussion, key informant interview, and direct observation were also conducted. Cases were randomly selected from the community. Controls were selected from the neighborhoods of the cases. The participants were examined clinically for signs of active trachoma.

Total of 219 subjects, 73 cases and 146 controls were recruited and examined for active trachoma. Of this number 41% were females and 59% were males. The Main factors associated with having trachoma were: unclean faces (OR= 188.4; 95% CI= 62.8-565); having no education (OR= 8.8; 95% CI= 4.4-17.7); getting water for domestic use from the hand dug wells (OR= 4.6; 95% CI= 1.9-11); urinating around the home compound (OR= 2.7; 95% CI= 1.1-6.3); being more than 9 years old (OR= 2.6; 95% CI= 1.3-5.1); being a farmer (OR= 5.5; 95% CI=3.0-10.1), and being a female (OR= 6.6; 95% CI=3.5-12.3 ). The factors associated with not having trachoma were: Washing hands with water and soap after removing eye or nasal discharge for a

face (OR= 0.3; 95% CI= 0.1-0.8); getting water for domestic use from seasonal stream (OR= 0.3; 95% CI= 0.2-0.6) and urinating in the bath room (OR= 0.4; 95% CI= 0.2- 0.8).

Risk factors for trachoma in Eastern Equatoria State were: Poor personal hygiene, poor environmental sanitation, lack of formal education, being a female, being a farmer and being more than nine years old.

Creation of awareness on the importance of face washing and latrines use, sensitization of the community on adult literacy with emphases on female education, integration of trachoma health education in schools and provision of safe and sustainable water source close to residents are recommended. In addition, immediate intervention with community-based health education was recommended.